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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/667,460	09/23/2003	Jong-Weon Moon	8733.919.00-US	9490
7590	06/02/2005		EXAMINER	
MCKENNA LONG & ALDRIDGE LLP Song K. Jung 1900 K Street, N.W. Washington, DC 20006			CHUNG, DAVID Y	
			ART UNIT	PAPER NUMBER
			2871	

DATE MAILED: 06/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/667,460	MOON ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	David Y. Chung	2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 10 March 2005.  
 2a) This action is FINAL.                            2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-27 is/are pending in the application.  
 4a) Of the above claim(s) 10-27 is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1,6,7 and 9 is/are rejected.  
 7) Claim(s) 2-5 and 8 is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____

## DETAILED ACTION

### ***Election/Restrictions***

Applicant's election with traverse of specie I in the reply filed on March 10, 2005 is acknowledged. The traversal is on the ground(s) that the species are not mutually exclusive. This is not found persuasive because because of the differences in structure that are claimed in the two species.

The requirement is still deemed proper and is therefore made FINAL.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**1. Claims 1, 6, 7 and 9 rejected under 35 U.S.C. 103(a) as being unpatentable over Sato et al. (U.S. 5,708,485) in view of Bahadur (Liquid crystals 1990) and Yamahara et al. (U.S. 6,084,651).**

As to claim 1, Sato et al. discloses an active matrix display device having a light blocking layer over the thin film transistor. Note in figure 1, the source region S, drain region D, gate region G, substrates 1 and 2, thin-film transistor 7, pixel electrode 6, and

common electrode 5. The insulating layer 17 can be considered the passivation layer. A shielding film 16M is formed on insulating layer 17 and is considered to be the blocking layer. See column 4, line 35 – column 5, line 44. Sato et al. discloses that the blocking layer 16M can be formed of metal such as Cr, Ni, Ta, Al, Cu, Mo, Pt or Pd. See column 7, lines 40-45.

Sato et al. does not disclose a color filter layer with the common electrode on it. However, Bahadur discloses that this type of structure was conventional. See figure 3 on page 180. It would have been obvious to one of ordinary skill in the art at the time of invention to use the conventional structure shown by Bahadur because conventional structures were generally more cost-effective and reliable.

Sato et al. does not disclose polarizers and retardation films on the outside of the substrates. Bahadur discloses that polarizers were conventional in liquid crystal displays. See page 189. It would have been obvious to one of ordinary skill in the art at the time of invention to provide polarizers because they were conventional and conventional elements are generally more cost-effective and reliable. Yamahara et al. discloses retardation layers under the polarizers. Note the phase plates 2 and 3 in figure 1. It was well known that retardation layers were used to correct for unwanted birefringence of the liquid crystal layer in order to achieve better contrast. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to provide retardation layers under the polarizers in order to achieve better contrast.

As to claim 6, Sato et al. discloses that the blocking layer can include chromium.

See column 7, lines 40-45.

As to claim 7, figure 1 of Sato et al. clearly shows the blocking layer 16M between the passivation layer 17 and pixel electrode 6.

As to claim 9, Sato et al. does not disclose that the passivation layer includes acrylic resin or benzocyclobutene. However, it was well known that organic and inorganic passivation layers were art recognized equivalents. Acrylic resin and benzocyclobutene are conventional materials used in organic passivation layers. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to form the passivation layer using acrylic resin or benzocyclobutene because they were conventional organic materials and organic passivation layers were art recognized equivalents to inorganic passivation layers.

#### ***Allowable Subject Matter***

Claims 2-5 and 8 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Chung whose telephone number is (571) 272-2288. The examiner can normally be reached on Monday-Friday from 8:30 am to 5:00 pm.



**KENNETH PARKER  
PRIMARY EXAMINER**